

THE OCCURRENCE OF *VEIGAIA UNCATA* FARRIER (ACARINA: MESOSTIGMATA: VEIGAIIDAE) IN AUSTRALIA AND PAPUA NEW GUINEA

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Abstract

Veigaia uncata is recorded from several rainforest sites in Papua New Guinea and north Queensland. This is the first record of Veigaiidae from tropical Australasia, and confirms the suggestion that *V. uncata* is circumtropical in distribution.

Introduction

Farrier's (1957) review of the mite family Veigaiidae included 30 species arranged in 3 genera. Most species were known only from Europe, with a few recorded from North America and Asia. Since then, veigaiids have been described and recorded from many parts of the world (Bregetova 1961, Bhattacharyya 1972, Ishikawa 1972, 1978, Hurlbutt 1983, 1984). The only Australian record of the family appears to be *Veigaia gentiles* Womersley, 1956, described from Kangaroo Island. A second species, *Veigaia uncata*, is here recorded from Australia and Papua New Guinea, thereby extending the known range of this species and the family.

Veigaia uncata Farrier

Veigaia uncata Farrier, 1957; Bregetova, 1961; Bhattacharyya, 1972; Hurlbutt, 1983, 1984.

Material Examined

QUEENSLAND: Ravenshoe State Forest, Tully Falls Road, 15.xi.1987, rainforest leaf litter, Walford-Huggins coll., 1 female; same data, 1.x.1987, 1 female; Koombooloomba, 4.vii.1971, Taylor and Feehan coll., ANIC356, 1 female; Crawfords Lookout, 5.vii.1971, Taylor and Feehan coll., ANIC361, 2 females; same data, 10.vii.1971, ANIC368, 1 female; Tully Falls Nat. Pk., 2.vii.1971, Taylor and Feehan coll., 2.vii.1971, ANIC355, 1 female; Upper Mulgrave River, 19.vi.1971, Taylor and Feehan coll., ANIC315, 2 females. PAPUA NEW GUINEA: Highlands Highway near Komum (near Mt Hagen), alt. 1830 m, 16.vii.1972, G. Baker coll., ANIC418, 1 female + 2 deutonymphs.

Notes

Veigaia uncata is easily distinguished from most other members of the genus, including *V. gentiles*, by the presence of prominent spurs on the trochanter and femur of leg IV of the female (but see *V. capreolus* below). These spurs are absent in the deutonymph. However, the deutonymph is identical with the female in the morphology of the epistome, the setae of the palp genu and femur, and in the dorsal shield chaetotaxy.

Hurlbutt (1983) cites records of this species from North Carolina (Farrier 1957), Georgia (USSR) (Bregetova 1961), Madagascar (Bregetova 1961), India (Bhattacharyya 1972), and Tanzania (Hurlbutt 1983). He speculates that the species may be circumtropical in distribution - the present records support this suggestion. The

Queensland records all come from tropical rainforest in an area around Cairns and the Atherton Tableland, and range in altitude from 75 m at Mulgrave River to 750 m at Tully Falls. It is unlikely that the species has been introduced to these localities by human intervention, despite the observation that veigaiids seem prone to dispersal by this means (see the many quarantine interceptions listed by Farrier 1957).

Hurlbutt (1983) also states that *V. uncata* may be a junior synonym of *V. capreolus* (Berlese 1905), described from Java. It is true that these two species both have spurs on leg IV, and that they are superficially similar in other ways, but they are certainly not synonymous. In *V. capreolus* the pre-sternal plates are completely fused with the sternal shield, while they are free and distinct in *V. uncata*. Also, Berlese's illustration of *capreolus* (1905, fig. 30., reproduced by Farrier), and examination of the holotype, shows that the genital and ventral shields are fused, while these are quite separate in *V. uncata*. The ventral shield of *V. capreolus* is flask-shaped, with smoothly rounded lateral margins. All illustrations of *V. uncata*, as well as the present specimens, show the ventral shield of *V. uncata* as very wide, with its antero-lateral corners reaching almost to the posterior tips of the peritrematal shields. The proposed synonymy therefore cannot be accepted.

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